

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

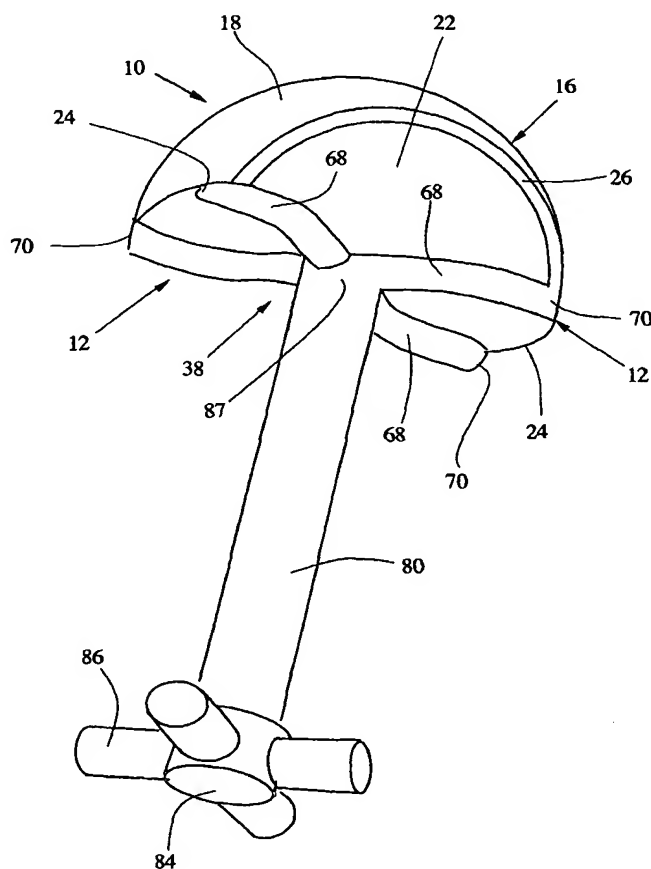
(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number  
**WO 03/086208 A1**

- (51) International Patent Classification<sup>7</sup>: **A61B 17/16** PA19345 (US). **LECHOT, André** [CH/CH]; Sous L'Eau-Belle 24, CH-2534 Orvin (CH). **MAHMOUD, Ezzedine** [TN/CH]; Route d'Aegerten 26, CH-2503 Bienne (CH).
- (21) International Application Number: PCT/US02/21310
- (22) International Filing Date: 1 August 2002 (01.08.2002) (74) Agent: **MOETTEL, John**; Bugnion S.A., 10, route de Florissant, Case Postale 375, CH-1211 Genève 12 (CH).
- (25) Filing Language: English (81) Designated States (*national*): AU, CA, CH, CN, FI, JP, KR, MX, NZ, SE, SG, US.
- (26) Publication Language: English (84) Designated States (*regional*): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR).
- (30) Priority Data: 60/372,285 12 April 2002 (12.04.2002) US
- (71) Applicant (*for all designated States except US*): **PRECIMED, S.A.** [CH/CH]; L'Echelle 7, CH-2534 Orvin (CH). Published:  
— with international search report
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **WHITE, Patrick, Michel** [US/US]; 1213 Indian Trail Drive, Downingtown, For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MINIMALLY INVASIVE SURGICAL REAMER AND CONNECTION



(57) Abstract: An acetabular reamer (10) has a cutting structure (12) rotatable about a longitudinal axis (14) with a domed shell portion (16). The shell (16) has an outer surface (18) presenting multiple cutting sites (20) and an inner surface (22) for accumulation of debris. The shell (16) has a static insertion profile area that is defined by a pair of first curved portions (24) generated about a first radius (30) with a center that lies on the axis (14) and a pair of second curved portions (26) generated about a center that is spaced apart from the axis. The cutting structure (12) has a circular dynamic profile area generated upon rotation of the reamer (10) by a handle (40). Both the static insertion area and dynamic profile area lie transverse to the axis (14), the former being smaller than the latter. Several distinctive alignment structures (38) are described, alone and in combination with reamers (10) having a conventional hemispherical shell (15), as well as in combination with those present reamers (10) that are less invasive.